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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,980	05/20/2002	Paul A. J. Morris	65008-034	1133

7590 03/28/2007

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EXAMINER	
FISCHER, JUSTIN R	
ART UNIT	**PAPER NUMBER**
1733	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/031,980	MORRIS, PAUL A. J.	
	Examiner	Art Unit	
	Justin R. Fischer	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,7-9 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,7-9 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 13, 2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Constantine (US 3,655,474, of record). Constantine teaches a method of forming a stretchable composite fabric comprising passing a shell fabric (woven fabric strip) and a backing fabric (interlining) through a fabric treatment apparatus (depicted in Figure 1), applying a compressive shrinkage thereto, and bonding the respective fabrics to one another via a bonding adhesive. The reference further teaches that the retarding roller of the fabric treatment apparatus can be internally heated (Column 3, Lines 30-50, Column 8, Lines 10-23, Column 11, Lines 10-20). Lastly, the respective layers are seen to be "bonded" together due to the application of heat and pressure by rollers 15, 16 since the

respective layers are united or laminated to one another- the language "bonded" is not seen to require the bonding agent be fully cured.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantine.

Constantine teaches a method of forming a stretchable composite fabric comprising passing a shell fabric (woven fabric strip) and a backing fabric (interlining) through a fabric treatment apparatus (depicted in Figure 1), applying a compressive shrinkage thereto, and bonding the respective fabrics to one another via a bonding adhesive. The reference further teaches that (a) the composite fabric (combination of shell and backing fabric) can be initially exposed to steam prior to being fed through the fabric treatment apparatus and (b) the retarding roller of the fabric treatment apparatus can be internally heated (Column 3, Lines 30-50, Column 8, Lines 10-23, Column 11, Lines 10-20).

As to the specific method of making a waistband, one of ordinary skill in the art at the time of the invention would have found it obvious to form a waistband using the method of Constantine in view of the disclosure noted above (waistbands are well recognized as being a garment component). It is additionally noted that such composite

fabrics are recognized as being used in the manufacture of waistbands. Lastly, as noted above, Constantine teaches that the fabric has some degree of elastic restorability, which may be desirable for many end uses.

Lastly, with respect to "bonding" the respective layers, it is noted that the reference teaches a method in which "this operation may be carried out at a time convenient to the requirements of the other processing operations and **may, if desired,** be performed subsequent to mechanical compressive shrinkage of the composite fabric" (Column 4, Lines 40-50). This language clearly suggests an exemplary embodiment in which heat-curing occurs subsequent to the compressive shrinkage. A fair reading of the reference suggests additionally techniques in which the curing does not occur subsequent to the compressive shrinkage, which includes a method in which the operation occurs simultaneous with the compressive shrinkage.

6. Claims 5, 7, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constantine as applied in claims 1 and 10 above and further in view of Bauer (US 3,723,217, of record). As noted above, Constantine substantially teaches the method of the claimed invention, include adhesively bonding the respective fabrics. While the adhesive material is not disclosed by Constantine, the claimed material is consistent with the conventional adhesive materials used in the manufacture of similar composite fabric assemblies, as shown for example by Bauer (Column 3, Lines 24-40). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to practice the method of Constantine with

the claimed adhesive material, there being no conclusive showing of unexpected results.

Regarding claim 7, Bauer evidences the well-known use of polyamide and polyester materials for the backing layer (Column 2, Lines 67+). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to form the backing fabric of Constantine from a woven polyamide or a polyester fabric. It is further noted that nylon and acetate are only exemplary in the disclosure of Constantine (Column 3, Lines 50-55).

7. Claims 1, 5, 7, 10, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer and further in view of Constantine.

Bauer discloses a method of forming a bonded textile fabric useful in the manufacture of wearing apparel comprising the steps of arranging an uncured or partially cured adhesive between a first and second fabric, compressively shrinking the assembly by feeding said assembly through a fabric treatment apparatus comprising a plurality of rollers (applies pressure), and curing the adhesive (bonding) while both fabrics are in a compressed state (Column 3). The reference, however, is silent as to the application of heat. Constantine, on the other hand, teaches an extremely similar method and suggests that effective compressive shrinkage is obtained by exposing the assembly to steam and optionally heating the retarding roller (Column 8, Lines 1-20). As such, one of ordinary skill in the art at the time of the invention would have found it obvious to apply heat in the method of Bauer.

As noted above, Bauer teaches that the composite fabric is usable in the apparel industry- while the reference fails to expressly teach the manufacture of a waistband, one of ordinary skill in the art at the time of the invention would have found it obvious to form a waistband using the method of Bauer in view of the disclosure noted above (waistbands are well recognized as being apparel/garment components). It is additionally noted that such composite fabrics are recognized as being used in the manufacture of waistbands.

As to the respective fabrics, Bauer teaches that they can be knitted, woven, or non-woven and furthermore, that they may be comprised of cotton, wool, polyamides, polyesters, or blends thereof (Column 3, Lines 1-10). One of ordinary skill in the art at the time of the invention would have found it obvious to form one of the layers as a woven fabric and one of the layers from a thermoplastic material- this combination of materials is consistent with composite fabrics used in the apparel industry. It is further noted that Constantine recognizes the known use of woven fabric layers and thermoplastic interlinings or backing layers.

With respect to the layers being "bonded", Bauer teaches a method in which "the adhesive will flow into a configuration wherein it will tend to hold the laminate in the compacted form" (Column 4, Lines 55-61). This action occurs simultaneous with the application of compressive shrinkage and is seen to constitute a "bonded" assembly. As noted above, the language "bonded" does not require the adhesive be fully cured.

Regarding claim 5, the claimed material/method are consistent with the conventional adhesive materials and methods used in the manufacture of similar composite fabric assemblies (Column 3, Lines 24-40).

With respect to claims 7, 13, and 14, the fabrics can be formed as a woven construction and they can be formed of either polyamide or polyester- one of ordinary skill in the art at the time of the invention would have been able to appropriately selected the desired materials and arrangement depending on the specific article being manufactured.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer and Constantine as applied in claim 1 above and further in view of the Admitted Prior Art (Page 4). Bauer discloses a composite assembly formed of at least two plies of the same or different textile fabric (Column 2, Lines 60-66). In this instance, the claim requires a non-woven or knitted material be processed with the composite assembly defined by a woven fabric and a thermoplastic interlining. As noted above, one of ordinary skill in the art at the time of the invention would have found it obvious to form the composite assembly from a woven fabric and a thermoplastic layer in view of the disclosure of Bauer and the known use of such combinations to form a composite fabric usable in the apparel industry. In regards to the inclusion of an additional layer, the APA recognizes that such a layer (rigid non-woven or knitted material- stretch interlining) is commonly included in order to make the waistband fabric (fabric and interlining) more substantial and easier to handle. One of ordinary skill in the art at the time of the invention would have found it obvious to form the assembly as a three layer

laminate since the reference teaches a construction of at least two plies and the APA recognizes the specific use of such a layer (rigid non-woven or knitted material) with a composite assembly defined by a woven fabric and a thermoplastic interlining for the benefits detailed above. It is additionally noted that Bauer is broadly directed to the use of a composite fabric in the apparel industry and one of ordinary skill in the art at the time of the invention would have found it obvious to use the composite in a wide variety of environments (including stretch trousers and skirt waistbands- instances where stretch interlinings are conventionally included).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer, Constantine, and the APA as applied in claim 8 above and further in view of Kavesh (US, 4,819,458, of record) and optionally in view of Dagg (GB, 2,307,167, of record). As noted above, Bauer in view of Constantine disclose a method of laminating a woven fabric to a backing layer or interlining. While Bauer fails to expressly suggest that the woven fabric is tensioned during processing, one of ordinary skill in the art at the time of the invention would have found it obvious to tension said woven fabric since such a technique is extremely well known in the manufacture of clothing articles in order to impart a desired pattern (against direction of shrinkage), as shown for example by Kavesh (Column 1, Lines 37-50 and Column 4, Line 58 – Column 5, Line 20). Dagg is optionally applied to further evidence the well know use of tensioning during bonding of fabric layers in the manufacture of clothing articles (Page 8, 2nd Paragraph). Thus, tensioning is recognized in the clothing industry as a suitable processing technique

when dealing with shrinkable fabrics, there being no conclusive showing of unexpected results to establish a criticality for the claimed tensioning.

Response to Arguments

10. Applicant's arguments filed March 13, 2007 have been fully considered but they are not persuasive.

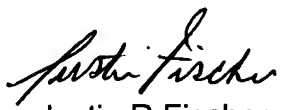
With respect to Constantine, applicant argues that the reference fails to suggest, disclose, or teach a simultaneous operation. In particular, applicant argues that the respective fabrics are compressed and subsequently cured. It is initially noted that the reference teaches a method in which "this operation may be carried out at a time convenient to the requirements of the other processing operations and **may, if desired,** be performed subsequent to mechanical compressive shrinkage of the composite fabric" (Column 4, Lines 40-50). This language clearly suggests an exemplary embodiment in which heat-curing occurs subsequent to the compressive shrinkage. A fair reading of the reference suggests additionally techniques in which the curing does not occur subsequent to the compressive shrinkage, which includes a method in which the operation occurs simultaneous with the compressive shrinkage. Furthermore, the claim simply requires that the woven fabric, the bonding agent, and the interlining are "bonded". After exiting the roller assembly 15, 16, the respective layers of Constantine are seen to be in a "bonded" condition since the respective layers are united or laminated to one another (composite fabric is a self-standing arrangement). The language "bonding" the layers does not require that the bonding agent be fully cured.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Justin R Fischer
Primary Examiner
Art Unit 1733

JRF
March 26, 2007